

REMARKS

Applicants have herein amended claims 17, 125 and 128 of the subject application. Claims 17, 19, 98-103, 125-126 and 128 are pending in the subject application.

Claims 17, 19, 98-101, 103, 125-126 and 128

The Office rejected claims 17, 19, 98-101, 103, 125-126 and 128 under 35 U.S.C. §102(b) as anticipated by Moravvej-Farshi et al. M. K. Moravvej-Farshi and M. A. Green, *Novel Self-Aligned Polysilicon-Gate MOSFETs with Polysilicon Source and Drain*, 30 SOLID-STATE ELECTRONICS 1053 (1987) (“Moravvej”). Applicants traverse the rejection as follows.

Under 35 U.S.C. §102(b), a claim is anticipated only if each and every element as set forth in the claim is found in a prior art reference. *See* MPEP §2131. Applicants submit that the Office has not established that Moravvej anticipates the present application because not all elements of claims 17, 125, and 128, as amended, are found in the cited reference.

Moravvej is directed to a masking oxide sequence that self-aligns the gate between the source and the drain. *See* Moravvej, *supra*, at 1053, 1058. Moravvej states that “[e]tching of the second polysilicon layer in regions not protected by the oxide until the oxide of the first polysilicon layer is exposed will leave the top layer of polysilicon perfectly aligned to the original source and drain regions of the transistor...” Moravvej, *supra*, at 1054. In addition, Moravvej utilizes silicon dioxide both to achieve this self-aligning process and to insulate the gate from the drain and source. *See* Moravvej, *supra*, at 1054.

The present application generally discusses implanting an excess dopant that shares the same polarity of the raised gate, source and drain. According to the application, the excess dopant is implanted into a pocket implant junction within a substrate of opposite polarity, thus causing the implanted atoms in the pocket implant junction to be counterdoped by the oppositely-charged substrate dopant. In addition, implanting the excess dopant will also create a doped outdiffusion area that maintains the same grade of polarity as that of the raised gate, source and drain. *See Application, pg. 6; ll. 23 – pg. 7; ll. 5.*

Applicants submit that Moravvej does not disclose, teach or suggest, among other things, such features. By necessary implication, therefore, Moravvej fails to disclose, teach or suggest, among other things, a first implant junction area located in said substrate assembly extending partially beneath said gate and said source, wherein said first junction area includes a first pocket implant junction and a first outdiffusion area and a second implant junction area located in said substrate assembly extending partially beneath said gate and said drain, wherein said second junction area includes a second pocket implant junction and a second outdiffusion area, as claimed in amended claims 17, 125, and 128.

Therefore, Applicants submit that claims 17, 125 and 128 are not anticipated by Moravvej because Moravvej does not disclose, teach or suggest each and every element of the claims, and thus, claims 19 and 98-103, which depend from claim 17, and claim 126, which depends from claim 125 are not anticipated by Moravvej for the same reasons stated hereinabove.

Claim 102

The Office also rejected claim 102 under 35 U.S.C. §103(a) as being unpatentable over Moravvej in view of Official Notice taken with respect to forming an “adhesion/barrier layer.” Applicants traverse the rejection as follows.

A *prima facie* case of obviousness under 35 U.S.C. §103(a) requires, among other things, that the cited references, when combined, teach or suggest every element of the claim. *See* MPEP §2142. For reasons stated hereinabove, Applicants submit that the Office has not established a *prima facie* case of obviousness because not all elements of claim 17 are taught or suggested by the Moravvej reference. Therefore, Applicants submit that claim 102, which depends from claim 17, is also nonobvious in view of the reference cited in the office action. *See* MPEP § 2143.03 (stating if an independent claim is nonobvious under 35 U.S.C. §103, then any claim depending therefrom is nonobvious).

Furthermore, for purposes of various arguments presented herein, Applicants respectfully invite attention to various excerpts of MPEP §2144.03, which is entitled ‘Reliance on Common Knowledge in the Art or ‘Well Known’ Prior Art” and which reads, in pertinent parts, as follows:

As noted by the court in *In re Ahlert*, 424 F.2d 1088, 1091, 165 USPQ 418, 420 (CCPA 1970), the notice of facts beyond the record which may be taken by the examiner must be "capable of such instant and unquestionable demonstration as to defy dispute" (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)).

....

It would not be appropriate for the examiner to take official notice of facts without citing a prior art reference where the facts asserted to be well known are not capable of instant and unquestionable demonstration as being well-known. For example, assertions of technical facts in the areas of esoteric technology or specific knowledge of the prior art must always be supported by citation to some reference work recognized as standard in the pertinent art. *In re Ahlert*, 424 F.2d at 1091, 165 USPQ at 420-21. See also *In re Grose*, 592 F.2d 1161, 1167-68, 201 USPQ 57, 63 (CCPA 1979) ("[W]hen the PTO seeks to rely upon a chemical theory, in establishing a *prima facie* case of obviousness, it must provide evidentiary support for the existence and meaning of that theory."); *In re Eynde*, 480 F.2d 1364, 1370, 178 USPQ 470, 474 (CCPA 1973) ("[W]e reject the notion that judicial or administrative notice may be taken of the state of the art. The facts constituting the state of the art are normally subject to the possibility of rational disagreement among reasonable men and are not amenable to the taking of such notice.").

....

It is never appropriate to rely solely on "common knowledge" in the art without evidentiary support in the record, as the principal evidence upon which a rejection was based. *Zurko*, 258 F.3d at 1385, 59 USPQ2d at 1697 ("[T]he Board cannot simply reach conclusions based on its own understanding or experience-or on its assessment of what would be basic knowledge or common sense. Rather, the Board must point to some concrete evidence in the record in support of these findings.").

....

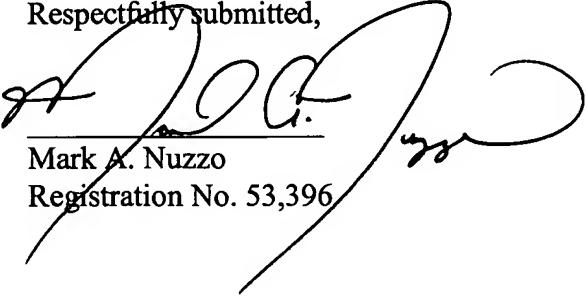
Any rejection based on assertions that a fact is well-known or is common knowledge in the art without documentary evidence to support the examiner's conclusion should be judiciously applied. Furthermore, as noted by the court in *Ahlert*, any facts so noticed should be of notorious character and serve only to "fill in the gaps" in an insubstantial manner which might exist in the evidentiary showing made by the examiner to support a particular ground for rejection. It is never appropriate to rely solely on common knowledge in the art without evidentiary support in the record as the principal evidence upon which a rejection was based. See *Zurko*, 258 F.3d at 1386, 59 USPQ2d at 1697; *Ahlert*, 424 F.2d at 1092, 165 USPQ 421.

In light of the aforementioned MPEP citations, Applicants respectfully challenge the propriety of asserting “Official Notice” status for the aspect of forming an “adhesion/barrier layer” in the Office Action. As indicated above, the MPEP admonishes that such “Official Notice” must be “capable of such instant and unquestionable demonstration as to defy dispute,” and that, “any facts so noticed should be of notorious character and serve only to ‘fill in the gaps’ in an insubstantial manner which might exist” (see excerpts above). In view of these guidelines, Applicants respectfully submit that the assertions of “Official Notice” for the various aspects discussed in the Office Action are inappropriate and should not be relied upon to maintain the present rejection concerning claim 102.

CONCLUSION

Applicants respectfully request issuance of a Notice of Allowance for the subject application. If the Examiner is of the opinion that the subject application is in condition for disposition other than allowance, the Examiner is respectfully requested to contact the undersigned representative at the telephone number listed below, in order that the Examiner's concerns may be expeditiously addressed.

Respectfully submitted,



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